

805 KAR 3:090. Electricity.

RELATES TO: KRS 351.070

STATUTORY AUTHORITY: KRS 351.070

NECESSITY, FUNCTION, AND CONFORMITY: This administrative regulation is to establish safety standards in the use of electricity in the operation of the Commonwealth's surface type coal and clay mines which include strip and auger mining operations.

Section 1. Electricity. (1) Circuits shall be protected against excessive overloads by fuses or circuit breakers of the correct type and capacity.

(2) Powerlines and telephones circuits shall be protected against short circuits and lightning.

(3) Electric equipment and circuits shall be provided with switches or other controls. Such switches or controls shall be of approved design and construction and shall be properly installed.

(4) Individual overload protection or short-circuit protection shall be provided for the trailing cables of mobile equipment.

(5) Power wires and cables shall have adequate current-carrying capacity and shall be protected from mechanical injury.

(6) Neither crawler-mounted nor rubber-tired equipment shall run over trailing cables, unless the cables are properly bridged or otherwise protected.

(7) Distribution boxes shall be provided with disconnect switches.

(8) Trailing cable and power cable connections to junction boxes shall not be made or broken under load.

(9) Power wires and cables shall be insulated adequately where they pass into or out of electrical compartments.

(10) Power wires and cables which present a fire hazard shall be well installed on acceptable insulators.

(11) Where metallic tools or equipment can come in contact with bare powerlines, the lines shall be guarded or deenergized.

(12) Telephone and low-potential electric signal wires shall be protected from contacting energized powerlines.

(13) High-potential transmission cables shall be covered, insulated, or placed according to acceptable electrical codes to prevent contact with low-potential circuits.

(14) The potential or bare signal wires accessible to personal contact should not exceed forty (40) volts.

(15) Splices in power cables, including ground conductor, where provided, shall be:

(a) Mechanically strong with adequate electrical conductivity;

(b) Effectively insulated and sealed to exclude moisture;

(c) Provided with mechanical protection and electrical conductivity as near as possible to that of the original.

(16) Shovel trailing cables shall not be moved with the shovel dipper unless cable slings or sleds are used.

(17) Energized high-potential cables shall be handled with insulated hooks or tongs.

(18) Electrical equipment shall be deenergized before work is done on such equipment. Switches shall be locked out and suitable warning signs posted by the individuals who are to do the work; locks shall be removed only by authorized persons.

(19) Power circuits shall be deenergized before work is done on such circuits unless hot line tools are used. Switches shall be locked out and suitable warning signs posted by the individuals who are to do the work; locks shall be removed only by authorized persons.

(20) Principal power switches shall be labeled to show which units they control, unless identifica-

tion can be made readily by location.

(21) At least three (3) feet of clearance shall be provided around all parts of stationary electric equipment or switch-gear where access or travel is necessary.

(22) Dry wooden platforms, insulating mats, or other electrically nonconductive materials shall be kept in place of all switchboards and power-control switches where shock hazards exist. However, metal plates on which a person normally would stand kept at the same potential as the grounded metal noncurrent carrying parts of the power switches to be operated may be used.

(23) Suitable danger signs shall be posted at all major electrical installations.

(24) Areas containing major electrical installations shall be entered only by authorized personnel.

(25) Electrical connections and resistor grids that are difficult or impractical to insulate shall be guarded, unless protection is provided by location.

(26) Reverse-current protection shall be provided at storage battery-charging stations.

(27) All metal enclosing or encasing electrical circuits shall be grounded or provided with equivalent protection. (This requirement does not apply to battery-operated equipment.)

(28) Metal fencing and metal buildings enclosing transformers and switch-gear shall be grounded.

(29) Frame grounding or equivalent protection shall be provided for mobile equipment powered through trailing cables.

(30) Continuity and resistance of grounding systems shall be tested immediately after installation.

(31) Electric equipment and wiring shall be inspected by a competent person as often as necessary to assure safe operating conditions.

(32) When a potentially dangerous condition is found, it shall be corrected before equipment or wiring is energized.

(33) Inspection and cover plates on electrical equipment shall be kept in place at all times except during testing or repairs.

(34) Circuits shall be deenergized before fuses are removed or replaced.

(35) Fuse tongs or hot line tools shall be used when fuses are removed or replaced in medium or high voltage circuits.

(36) Trailing cables shall be clamped to machines in a manner to protect the cables from damage and to prevent strain on the electrical connections.

(37) Surplus trailing cables to shovels, cranes, and similar equipment shall be stored in cable boots or on reels mounted on the equipment or otherwise protected from mechanical damage.

(38) Operating controls shall be installed so that they can be operated without danger of contact with energized conductors.

(39) Equipment with booms or masts which are not properly protected shall not be operated where the booms or masts can come within ten (10) feet of an energized overhead powerline.

(40) Overhead high-potential powerlines shall be installed as specified by the National Electrical Safety Code.

(41) When equipment must be moved under energized power lines and the clearance is less than ten (10) feet, the power lines shall be deenergized or other precautions shall be taken.

(42) Guy wires from poles supporting high voltage transmission lines shall be securely connected to the system ground or be provided with insulators installed near the pole end.

(43) Telegraph, telephone, or signal wires shall not be installed on the same crossarm with power conductors. When carried on poles supporting power lines, they shall be installed as specified by the National Electrical Safety Code.

(44) Transformers shall be totally enclosed, or shall be placed at least fifteen (15) feet above the ground, or installed in a transformer house, or surrounded by a substantial fence at least six (6) feet high and at least three (3) feet from any energized parts, casings, or wiring.

(45) Transformer enclosures shall be kept locked against unauthorized entry.

(46) Tools and supplies shall be carried in the hands and not on the shoulders when men travel

near bare power conductors. (SMS-8; 1 Ky.R. 852; eff. 5-14-1975; Crt eff. 6-27-2018.)